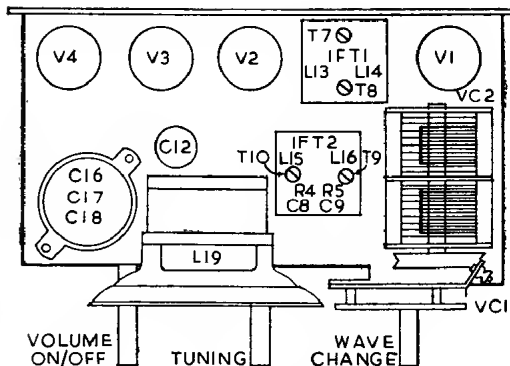


ALBA C112



Four-valve, three-waveband midjet type superhet, fitted with permanently attached aerial wire. For 200-250V AC or DC. In moulded plastic cabinet. Manufactured by A. J. Balcombe Ltd., 52-58, Tabernacle Street, London, E.C.2.

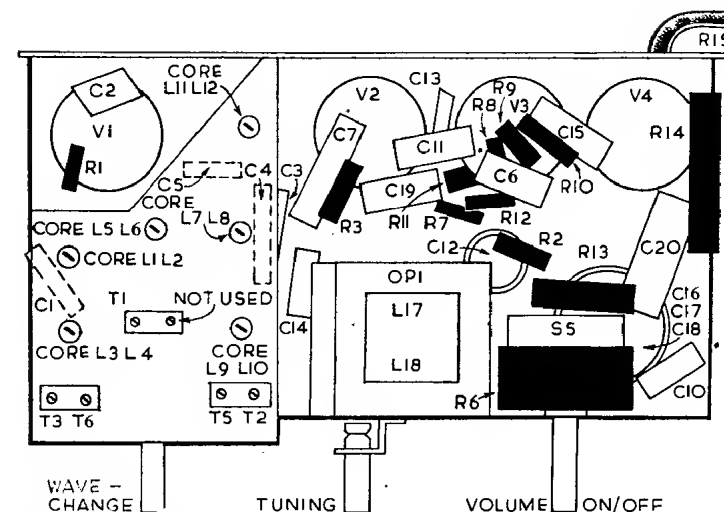


RESISTORS

R	Ohms	Watts	R	Ohms	Watts
1	47 k	1/2 W	9	470 k	1/2 W
2	10 k	1/2 W	10	150	1/2 W
3	150	1/2 W	11	1 m	1/2 W
4	47 k	1/2 W	12	2.2 m	1/2 W
5	470 k	1/2 W	13	1 k	1/2 W
6	1 meg potentiometer		14	270	1/2 W
7	56 k	1/2 W	15	600 line cord	
8	47 k	1/2 W			

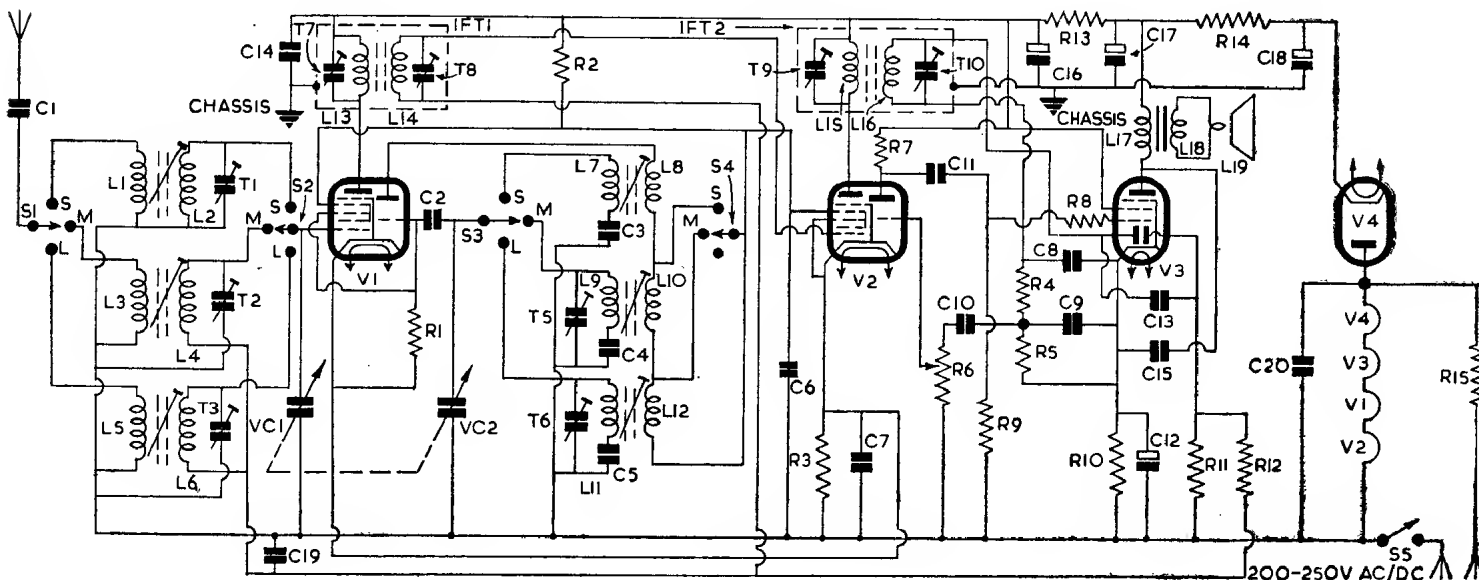
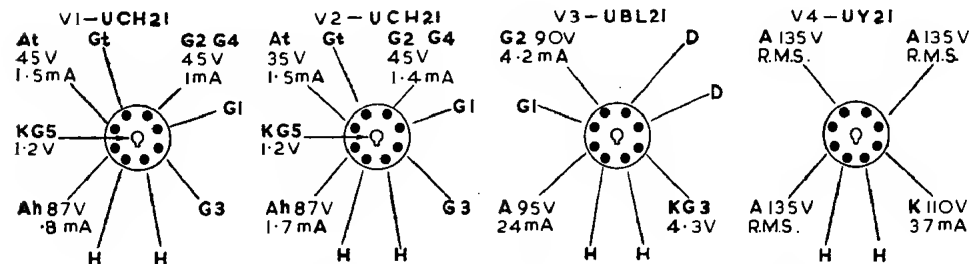
CAPACITORS

C	Capacity	Type
1	250pf tubular ceramic	
2	100pf silver mica	
3	3900pf tubular ceramic	
4	390pf tubular ceramic	
5	140pf tubular ceramic	
6	.1 tubular 150 v	
7	.25 tubular 150 v	
8	100pf tubular ceramic	
9	100pf tubular ceramic	
10	.005 tubular 500 v	
11	.005 tubular 500 v	
12	50 electrolytic 12 v	
13	100pf silver mica	
14	.1 tubular 350 v	
15	.01 tubular 500 v	
16	16 electrolytic 400 v	
17	16 electrolytic 400 v	
18	8 electrolytic 400 v	
19	.1 tubular 350 v	
20	.1 tubular 350 v	



INDUCTORS

L	Ohms
1	.15
2	.1
3	1.4
4	5.5
5	.70
6	23.5
7	.15
8	.15
9	4.5
10	1
11	10
12	1
13	9.5
14	6.5
15	9.5
16	6.5
17	140
18	.4
19	1.5



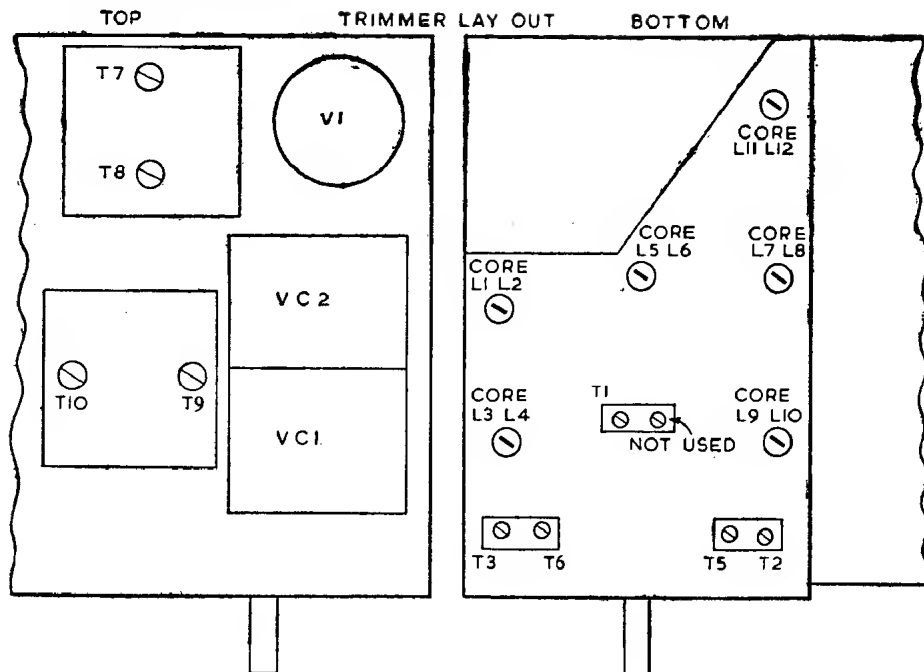
CIRCUIT consists of triode-heptode frequency changer V1, coupled by a capacity-tuned iron-cored IF transformer to the heptode portion of another triode-heptode V2. A second capacity-tuned iron-cored IF transformer couples the heptode portion of V2 to the diodes of the double-diode pentode output valve V3. The rectified signal appearing on the signal diode is then fed back to the triode section of V2 for amplification, and thence, via resistance-capacity coupling, to the grid of output pentode portion of V3. The second diode of V3 is used for AVC voltages which are applied to control grids of heptode sections of V1 and V2. Output from V3 is fed to a 3-in. PM loud-speaker. High tension is provided on AC mains supplies by an indirectly heated half-wave rectifier V4.

Aerial, consisting of approximately 15 feet of PVC insulated wire, is fed through isolating capacitor C1 to S1 and thence to aerial coupling coils L1 (SW), L3 (MW) and L5 (LW). The grid coils L2 (SW), L4 (MW), L6 (LW) are switched by S2 to grid tuning capacitor VC1 and to g1 of V1. T1 (SW), T2 (MW) and T3 (LW) are trimmers. AVC is applied to g1 on LW and MW bands from R12 decoupled by C19. No AVC is applied to g1 when on SW. Cathode bias is provided by R3 (also in the cathode circuit of V2) decoupled by C7. Screen g2, g4 voltage is obtained from R2 decoupled by C6. R2 also provides oscillator anode voltage of V1 and screen voltage of V2.

Suppressor grid g5 of V1 is internally connected to cathode. L13, T7, forming the primary of IFT1, are in the heptode anode circuit of V1.

Oscillator is connected in a tuned-grid series-fed HT circuit. L7 (SW), L9 (MW), L11 (LW) are the tuned coils and these are switched by S3 to the oscillator tuning capacitor VC2, and through C2 to oscillator grid g1 and injector grid g3 of V1. T5 (MW) and T6 (LW) are trimmers, and C3 (SW), C4 (MW), C5 (LW) padders. R1, C2 provide leak-condenser bias for oscillator grid.

Anode reaction voltages are developed on L8, L10, L12, which are connected in series with the oscillator HT supply from R2. S4 is used to short circuit L10, L12 when on SW band and



L12 on MW band. On LW all three remain in circuit.

IF Amplifier operates at a frequency of 455 kc/s. L14, T8, the secondary of 1FT1, applies the signal to g1 of V2. AVC is also fed to g1, through L14, from R12. C19 is AVC decoupling capacitor. Cathode bias is provided by R3 decoupled by C7. Screen g2, g4 voltage is obtained from R2 decoupled by C6. Suppressor grid g5 is internally connected to cathode. L15, T9, which form the primary of 1FT2, are in the heptode anode circuit of V2.

Signal Rectifier. The secondary of 1FT2 (L16, T10), applies signal to one diode of V3. R5 is the diode load and R4, C8, C9 form an IF filter circuit.

Automatic Volume Control.—C13 feeds signal from secondary L16 of 1FT2 to second diode of V3. R11 is diode load and R12, C19 are line decoupling. Delay voltage is provided by cathode bias developed across R10.

A. F. Amplifier.—C10 feeds rectified signal to volume control R6 and thence to grid (gt) of triode section of V2. Cathode bias is provided by R3 decoupled by C7. R7 is anode load.

Output Stage. C11 feeds signal at anode of triode section V2 to g1 of pentode output valve V3. R9 is its grid resistor and R8 a grid stopper. R10 decoupled by C12 provides cathode bias. Screen g2 voltage is obtained from HT line through R13 decoupled by C16. HT to V1 and V2 is also obtained from R13. Suppressor grid g3 of V3 is internally connected to cathode. L17, the primary of OPI, the output matching transformer, is in the anode circuit. C15 prevents rise in impedance of L17 at the higher frequencies. L18 feeds signal to a 3½ in. PM loudspeaker L19.

High Tension is provided on AC mains supplies

by an indirectly heated half-wave rectifier V4. Its anode voltage is obtained from mains dropper resistor R15. R14, C17, C18 provide resistance-capacity smoothing of the HT and C20 is fitted to eliminate modulation hum.

Heaters of V1 to V4 are series-connected and obtain their current through mains dropper resistor R15. S5, wired in the mains lead to chassis and ganged to the volume control, is the receiver on/off switch.

Removal of Chassis from Cabinet. Remove the three control knobs and the four bolts (one at each corner) fastening rear panel to cabinet. Chassis can now be carefully withdrawn from its cabinet.

TRIMMING INSTRUCTIONS

Apply signal as stated below	Tune Receiver to	Trim in Order stated for Max. Output
1) 455 kc/s to G1 of V1 via .01 capacitor		T10, T9, T8, T7
2) 1.4 mc/s to aerial via dummy aerial	215 metres	T5, T2
3) 600 kc/s as above ..	500 metres	Core of L9, L4. Repeat (2) & (3)
4) 272.7 kc/s as above	1,110 metres	T6, T3
5) 157.8 kc/s as above	1,900 metres	Core of L11, L6. Repeat (4) & (5)
6) 18.75 mc/s as above	16 metres	T1
7) 6 mc/s as above ..	50 metres	Core of L7, L2. Repeat (6) & (7)

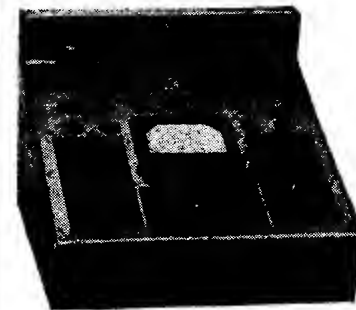
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